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ABSTRACT

The level of basic education skills among Nevada's adult work force and the effects of workers' basic skill levels on Nevada businesses were examined in a 1994 survey of 2,021 Nevada businesses employing 10 or more workers. Of the 1,163 businesses responding, 696 reported having 1 or more unskilled employees during May 1994. Of those 696 respondents, nearly 75% agreed that their employees' basic skills were generally adequate for their current jobs, 62% believed their job training would be more effective if employees had better basic skills, 23% had problems bringing in new equipment and had simplified some jobs due to inadequate basic skills in their labor pool, 11% had difficulty providing safety training because of employees' limited basic skills, and 15% said poor basic skills increased their operational costs by 5% or more. Eight actions that state agencies such as the Nevada Literacy Coalition and State Department of Adult Basic Education could take to improve Nevada's workplace literacy services were recommended. (Appended are summaries of survey responses regarding the following: problems resulting from workers with inadequate basic skills; workplace skills-related services Nevada state agencies should be providing; and effects of employees' basic skill levels on businesses.) (MN)

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WORKPLACE LITERACY

IN NEVADA

SURVEY OF EMPLOYERS AND

EXTENT OF CURRENT PROGRAMS

BY VICKY RAMAKKA,
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APRIL 1995

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WORKPLACE LITERACY IN NEVADA

Nevada employers have experienced detrimental effects of inadequate basic skills in the workplace. A 1994 survey of businesses sponsored by the Nevada Literacy Coalition found that:

- 62% of the respondents believed their job training would be more effective if employees had better basic skills
- 47% of the respondents had workers who could not be promoted due to poor basic skills
- 23% of the respondents thought bringing in new equipment would be a problem due to inadequate basic skills
- 11% of the respondents had difficulty providing safety training because of employees' limited basic skills
- 15% of the respondents indicated that poor basic skills increased their operational costs 5% or more.

These are some of the ways inadequate literacy skills impact the workplace. Why are we hearing more and more about workplace literacy and what does the term mean?

WORKPLACE LITERACY

The concept of workplace literacy is evolving rapidly. The term came into general use during the 1980s. Most definitions go beyond the basic ability to read and include writing, mathematics and communication. **Workplace literacy involves basic reading, writing, computation, speaking and listening skills which are required for acceptable performance of worksite tasks and the capability of using these skills to adapt to changes in the workplace.**

THE SKILLS GAP

There are two significant pressures combining to force attention on workplace literacy. These stem from changes in the workforce and changes in the workplace.

The demographic makeup of the workforce is changing. The decline in population growth will result in an older workforce. Young workers between the ages 16 to 34 will account for a smaller proportion of the workforce. Traditionally less skilled and under-utilized groups will be needed to fill available jobs. More than 80% of new entrants into the workforce will be women, minorities and immigrants. (The Bottom Line, DOE & DOL, 1988)

The workplace is changing to accommodate technological advancements and global competition. Many traditionally low-skilled jobs now require sophisticated skills. In 1965, a car mechanic needed to understand 5,000 pages of service manuals to fix any automobile on the road, now a mechanic must be able to decipher 465,000 pages of technical text. Secretaries used to only need to be proficient with a manual typewriter, but now must master a word processor, computers and telecommunications equipment. (Whitmen, et al., "The Forgotten Half", 1989)

According to The Bottom Line, 75% of America's workforce in the year 2000 are already adults, out of school and probably currently employed. While most newly-created jobs will require some post-secondary education, the portion of the labor force in need of college degrees may raise to 30%, at most, in the near future.

> "...the bigger and more important challenge is to improve the jobs, pay and skills of the noncollege-educated workforce. Our future productivity and pay levels will depend primarily on pay and performance in the types of jobs that currently exist and will only partially depend on moving the workforce into new professional or technical jobs. Training policy needs to focus on these broad segments of the workforce, so these workers can achieve skill levels adequate to support high performance work reorganization." ((Mishel and Teixeria, The Myth of the Coming Labor Shortage, 1991, p. 6)

Our changing economy puts demands on the current workforce holding traditional jobs to adapt to new procedures and increase productivity. The "skills gap" is the ever widening gap between the existing workforce and the education and skills demanded in a highly competitive information-based economy. Workplace literacy has come to the forefront not because literacy levels of the general population have declined, but because of higher literacy demands for effective functioning in the workplace.

> "...With continual changes in the workplace and the growing complexity of our modern works, workers face demands for new or different skills. As a result, our definition of what it means to be 'literate' is both broader and more complex than it used to be. For workers to update their literacy skills in a changing world, education and training must become more available to people of all ages in their workplaces and communities..." (Sarmiento and Kay, Worker-centered Learning, 1990, p. 17)

ILLITERACY IN THE WORKPLACE

Jonathan Kozol estimated in his book, Illiterate America (1985), that illiteracy costs businesses several billions of dollars annually which "...go to workers' compensation, damage to industrial equipment, and industrial insurance costs directly caused by on-site accidents related to the inability of workers to read safety warnings, chemical-content designations, and instructions for the operation of complex machines" (p. 14).

Inadequate literacy skills affect businesses by increasing training costs, endangering worker safety, increasing need for supervision, causing difficulties in relations with supervisors and co-workers, and lost productivity. (Collino et al., Literacy and Job Performance, 1988)

Illiteracy is an invisible impairment. Employees may engage in a variety of behaviors to avoid revealing themselves as poor readers or unable to write or do basic math calculations. This may result in the employer perceiving them as unwilling to adopt to change, too lazy to read manuals or posted notices, carelessly making mistakes, unmotivated about training opportunities, not interested in promotion, less productive, not able to respond to customers' questions and ignoring safety warnings.

WORKPLACE LITERACY EDUCATION

Previous national and state studies regarding workplace literacy training have indicated a widespread concern about employee basic skills. Companies have responded to problems related to lack of basic skills by raising job qualifications, increasing screening of job applicants and implementing workplace education programs. Figures from these studies varied greatly for the number of companies involved in workplace education, ranging from 5% to approximately 50%. Large companies with thousands of employees were most likely to have workplace literacy programs.

A common pattern for workplace education programs is the formation of partnerships between businesses and educational providers. Companies offer workplace literacy programs in a number of formats, choosing from using internal training staff; linking with a local community college, university or public school district; employing private consultants; or working with volunteer literacy programs which usually match volunteers with individual employees. Some programs use a combination of formats.

Many workplace literacy education programs use the "functional context" approach. Students use materials and tasks from their jobs to learn literacy skills. For example, accident report forms may be used to teach writing skills and mileage records used to introduce math skills. The functional context approach uses many current literacy instructional practices in that it builds upon the learner's prior knowledge, provides a context and purpose for learning, and relates literacy skills to those meaningful to the workplace community.

NEVADA WORKPLACE LITERACY CONSIDERATIONS

Nevada has distinctive characteristics which affect literacy needs. Three major influences are the rural nature of the state, the preponderance of small businesses, and the increasing population of non-native English speakers.

National census statistics show that adults in rural areas generally have a lower educational attainment than urban residents. Furthermore, in rural areas the population tends to be older than in urban areas, and illiteracy rates increase with age due to limited availability of education during the early part of the century. Based on the 1990 census, 21% of Nevada's adults age 25 and over did not complete high school. For two-thirds of the rural counties, this non-high school completion rate is higher than the state rate. The rural characteristic of much of Nevada means fewer providers available which makes delivery of literacy services more difficult.

The majority of businesses in Nevada are small. They are not likely to have the resources to provide much formal training. In fact, 98% of Nevada businesses have fewer than 100 employees. (Employment Security Research, Nevada Employment and Payrolls, 1993)

WORKPLACE LITERACY STUDY - SURVEY OF NEVADA EMPLOYERS

In 1992, the Governor's Literacy Coalition Advisory Council developed the Nevada Literacy 2000 plan. Goal nine of the plan concerned workplace literacy and called for a survey of business to determine literacy needs of the workforce and the extent of literacy training now being provided by Nevada businesses.

In 1994, Nevada employers were surveyed to determine whether they perceived a lack of basic education skills among the adult workforce and whether a lack of basic education skills was a hindrance to their organization's operation. An additional objective of this study was to determine the extent of workplace literacy programs offered at business sites during the previous year. The State Job Training Office and the Nevada Literacy Coalition funded the costs of the survey.

The survey was first mailed in May to 2,021 private sector businesses selected at random from a database provided by the Employment Security Department of employers who filed 1993 second quarter unemployment insurance reports. This group represented a 25% sample of employers who had in-state addresses and employed 10 or more workers. The sample was stratified on the basis of size (number of employees) and location (rural or urban). Urban location was identified from zip codes for communities within a 30 mile radius of Reno and of Las Vegas.

Two follow-up mailings were sent to non-respondents. Altogether, 1,163 surveys were received accounting for 1,182 businesses in the sample due to some corporate responses representing more than one site. Of these, 696 respondents reported having one or more unskilled employees during May, 1994. Since the study focused on unskilled employees, the results are based on these 696 respondents. Total number of employees represented by this group was 42,137 skilled or semi-skilled workers and 27,211 unskilled workers.

More responses, proportionately, were received from larger businesses. Businesses with 100 or more employees made up 8% of the original sample, but comprised 17% of the respondents reporting unskilled employees. Rural businesses made up 14% of the sample, but represented 20% of the respondents with unskilled employees. Industrial classification of respondents generally reflected their composition in the sample, except for Trade which was somewhat higher proportionately among respondents, and Service which was somewhat lower proportionately among respondents.

Groups of survey questions focused on: how basic skills impacted the respondents' organizations' operation; whether employees needed improved basic skills to perform work related tasks; frequency of problems encountered due to inadequate basic skills; interest in educational services; and whether respondents had basic skills education programs on site and whether they offered education incentives to employees.

RESULTS OF THE SURVEY

The following results are based on 696 respondents' answers to the survey questions. How respondents answered questions was also analyzed for statistically significant differences based on their organization's size, location, industrial classification and portion of unskilled workers made up of non-native English speakers. In general, urban or rural location of the business made no difference in how respondents answered the questions. Type of industry also made little difference. However, respondents from larger businesses and businesses that employed a larger portion of non-native English speakers among their unskilled workers generally indicated greater concern about inadequate basic skills and that a higher percentage of employees was in need of improved skills. Larger business respondents showed greater interest in educational services. A copy of the complete study, Perceptions of Nevada Employers Concerning Workplace Literacy and Survey of Current Workplace Literacy Programs (Ramakka, 1995), is available from the Nevada Literacy Coalition Resource Center.

CHARACTERISTICS OF RESPONDENTS

696 Respondents Reported Having Unskilled Employees.

Location	Number	Percent
Urban	558	80.2%
Rural	138	19.8%

Size	Number	Percent
1-19	270	38.8%
20-99	307	44.1%
100-499	90	12.9%
500 Plus	29	4.2%

Industrial Classification	Number	Percent
Agriculture	23	3.3%
Mining	11	1.6%
Construction	76	10.9%
Manufacturing	62	8.9%
Transportation Communication & Public Utilities	29	4.2%
Trade	279	40.1%
Finance Insurance Real Estate	40	5.7%
Service	176	25.3%

HOW DO EMPLOYEES' BASIC EDUCATION SKILLS AFFECT YOUR ORGANIZATION?

An average of 691 respondents answered the following questions. Basic skills were defined as reading, writing, mathematics, speaking and listening skills in English that are generally necessary for employees in unskilled jobs to do satisfactory work.

	% Agreed or Strongly Agreed*
1. Employees' current reading, writing, mathematics, speaking and listening skills are generally adequate for the jobs they are now doing.	71%
2. Bringing in new equipment is a problem because some of your employees don't have the basic education skills to learn how to use it.	23%
3. Your company is changing so much that employees need a higher level of reading, writing or math skills to keep up with changing job requirements.	25%
4. Your organization has workers who could not be promoted because of poor reading, writing, mathematics, speaking or listening skills.	47%
5. Your job training would be more effective if employees had better basic education skills.	62%
6. Your organization has difficulties meeting mandated safety requirements for providing safety training because of employees' limited basic skills.	11%
7. Your company has simplified some jobs because employees in the labor pool have inadequate basic education skills.	23%

*The remaining respondents answered disagree or strongly disagree or undecided.

DO EMPLOYEES NEED IMPROVED BASIC SKILLS TO PERFORM WORK-RELATED TASKS?

An average of 688 respondents provided an estimate of the percentage of their employees in unskilled jobs that needed improved basic education skills to adequately perform the following tasks.

	Percentage of Respondents*	
	5% - 49% of Their Unskilled Employees Need Improved Skills	50% Plus of Their Unskilled Employees Need Improved Skills
1. Filling out routine forms	38%	16%
2. Using manuals to look up and read information	34%	21%
3. Reading notices and employee policies	37%	16%
4. Handling money changing or cash balancing accurately	29%	13%
5. Doing shipping or receiving or inventorying duties	29%	13%
6. Following instructions given verbally by supervisor	40%	15%
7. Working in a group on a team project	34%	11%
8. Listening to customers and making an adequate response	35%	18%
9. Reading safety information	35%	16%
10. Verbally communicating work situations to supervisors	38%	18%

*The remaining respondents answered 0-4% in need of improved skills or not applicable/unknown.

DOES A LACK OF BASIC SKILLS COST BUSINESSES?

An average of 686 respondents rated how often they have experienced the following problems in their business due to poor basic skills.

	Percentage of Respondents*	
	Sometimes	Frequently
1. Written directions misread, work not adequately done	34%	9%
2. Spoken direction misunderstood, work not adequately done	37%	14%
3. Equipment damaged, instructions misread	19%	3%
4. Unsafe working conditions created because employees could not or did not read safety warnings	14%	2%
5. Unsafe working conditions created because employee who did not speak English misunderstood spoken instructions	11%	2%

* Remaining respondents answered never, seldom, or not applicable /unknown.

A survey question also asked employers to consider their total costs of doing business in 1993, and estimate what percentage of their operational costs were due to poor basic skills. Of 673 respondents to the question:

68% indicated 0% to 4%
10% indicated 5% to 9%
5% indicated 10% or more
17% indicated "Don't Know"

WRITTEN RESPONSES CONCERNING OTHER PROBLEMS DUE TO INADEQUATE BASIC SKILLS

In addition to the above question, there were 132 written responses to an open ended question which asked, "Briefly explain any other problems in your organization due to inadequate basic education skills of employees in unskilled jobs." The majority of the respondents (23) reported problems with work habits, attitudes and motivation. The second largest problem area with 17 comments involved communication, listening and comprehension. Fourteen respondents reported problems due to employees' limited English skills. Difficulties with reading and writing were observed by 13 respondents, 7 had problems with math skills and 5 noted problems with making change or handling money. There were 13 comments regarding lack of basic skills resulting in limitation on opportunities for advancement. Adverse effects on customer service were identified by 7 respondents. See Appendix A for comments.

INTEREST IN EDUCATIONAL SERVICES.

An average of 687 respondents answered questions about how interested they would be in the following services.

	Percent that Indicated They Would be Fairly or Very Interested*
1. Methods of encouraging employees to attend adult education or GED classes at a local school or community college	42%
2. Information about starting a basic education class at their business	12%
3. Information about basic education services available for workplace education	30%
4. Information about teaching materials available for workplace education	27%
5. Information about matching literacy volunteers with individual employees	24%
6. An 800 telephone number to ask questions about workplace education	26%

*Remaining respondents answered no interest, slight interest or not applicable/unknown.

WRITTEN COMMENTS REGARDING INTEREST IN SERVICES

Comments were received from 138 respondents to the open ended question, "What services should Nevada state agencies provide you regarding workplace basic skills?" (See Appendix B) Fifteen respondents requested English classes for non-English speakers, and an additional three respondents requested on-site ESL classes. Most of these requests came from businesses classified as hotels and motels, eating places or manufacturers. Ten other respondents suggested offering basic education or GED classes. Areas for occupational training and for training related to work attitudes were mentioned by 15 respondents. Nine comments recommended providing information about available classes to businesses, and others suggested a need for a clearinghouse or a source of information and guidance. Nine responses requested assistance to businesses in their job applicant screening process with testing for basic skills.

Among the comments for this question were almost as many indicating no services needed, or that workplace education was not the state's responsibility and taxpayer money should not be allocated for it, or that public schools should be strengthened to provide an educated workforce (Appendix B).

OTHER INDICATORS OF CONCERN ABOUT BASIC SKILLS

Some businesses have adopted strategies for coping with inadequate basic skills. Individuals with poor basic skills often rely on family members or others to help them with reading and writing tasks. They may ask for copies of documents such as job applications to fill out at home. One survey question asked respondents whether their company required people applying for jobs to fill out application forms on the premises. More than a third of the respondents (262 or 38%) said their company required people to complete application forms on the premises.

Testing job applicants for basic skills is an effort to ensure a minimum ability to handle reading, writing or mathematical job-related materials. Seventy-eight (11%) of the respondents said their company tested job applicants for reading or writing or math. Of these, 35 (45%) said they rejected 30% or more of the applicants due to inadequate reading or writing or math skills.

Many companies are accommodating the diverse workforce. A total of 257 (37%) respondents said their company used bilingual safety signs or other written notices for employees who do not speak English.

CURRENT WORKPLACE LITERACY EDUCATION ACTIVITY

Three survey questions addressed involvement of businesses in education and training of employees. Fifty-five (8%) respondents indicated that one or more basic education programs had been held at their company's site during the last 12 months. Of these, forty respondents indicated they had programs regarding workplace expectations and/or some type of job-related training, such as computers or safety. The remaining 15 (2%) indicated they offered programs that may be considered "workplace literacy" which involved basic skills such as ESL, reading or mathematics. (This 8% figure should not be taken to represent overall business training, as this was not the focus of the questionnaire.)

Larger organizations were more likely to have programs and occurrence of programs was more common among certain industrial classifications than others. Whether or not businesses had a larger proportion of non-English speakers did not seem to influence whether they had a basic skills program.

Of the 15 respondents with basic skills education on site, 7 checked ESL only and 8 checked one or more of the basic skills listed, including: reading, writing, math, speaking and listening, ESL and GED preparation. These programs were provided as follows:

7 used in-house trainers
2 used private contractors
1 had both in-house trainers and private contractors
1 worked with a community college
3 worked with volunteer literacy programs
1 did not specify a provider

INCENTIVES AND ATTENDANCE

In addition to programs on site, 24% of respondents reported that they were aware of employees who had attended classes in their community during the last 12 months.

One hundred thirty-six (nearly 20%) of the respondents reported that their company provided some type of incentive for employees in unskilled jobs to attend classes either on site or elsewhere in the community. The most common type of incentive was payment of some or all of the cost of courses, as indicated by 73 respondents. Of the respondents offering incentives, 118 identified their incentives as follows:

56 Paid or reimbursed all or part of cost of course, and sometimes books and supplies.
11 Paid or reimbursed cost of course, if work related.
6 Paid cost of course and gave paid time off to attend.
2 Paid time off to attend classes.
6 Flexible scheduling to attend classes.
3 Time off to attend classes.
9 Pay increases or better promotion opportunities.
4 Bonuses or awards.
11 Company provided training in a specific area.
5 Identified class or training, but unclear if paid for.
5 Miscellaneous

ADDITIONAL WRITTEN COMMENTS

There were 127 responses to the final survey question which allowed respondents to provide additional information or thoughts about basic education skills related to their business. The comments covered a wide range of topics. Comments discussed the impact of lack of English language skills, that minimal education is sufficient for some low-skill jobs, that workplace education is not the state's responsibility and government activities should be minimized, that more education and training is needed, that employees in skilled positions also lacked adequate reading, writing or math skills, and that poor attitudes and lack of motivation were as troublesome as lack of academic skills. See Appendix C for samples of comments.

COMMENTS FROM RESPONDENTS REPORTING NO UNSKILLED EMPLOYEES

There were 423 respondents that listed no unskilled employees and were not included in the data analysis. However, 105 provided comments on the final open-ended question which gave some additional insight into employers perceptions regarding basic skills. A number of these respondents showed concern about basic skills problems among their skilled and semi-skilled workers, among job applicants and recent high school graduates. A summary of these comments follows.

26 Required high school or college degrees, previous training or hired from unions.
20 Described their business or type of skills needed for their business.
11 Provided their own training.
8 Required employees have good skills to be retained.
7 Found basic skills problems among current employees.
7 Found many job applicants lacked basic skills.
5 Remarked that young people, even high school graduates, do not have as good skills as previous generations.
7 Described problems with work ethic, attitude, lack of motivation.
5 Recommended more education programs in occupational areas, trades, computers, etc.
3 Supported and encouraged continuing education.

SUMMARY

Employers clearly have encountered detrimental effects of inadequate basic skills in the workplace. While nearly three-quarters of the 696 respondents with unskilled employees agreed that their employees' reading, writing, mathematics, speaking and listening skills were generally adequate for their current jobs, they identified several areas where inadequate basic skills were impacting their companies. Nearly half of the respondents had workers who could not be promoted due to poor basic skills, and 62% believed their job training would be more effective if employees had better basic skills. Nearly a quarter of the respondents had problems bringing in new equipment and had simplified some jobs due to inadequate basic skills in the labor pool. Eleven percent of the respondents reported having difficulty providing safety training because of employees' limited basic skills. Fifteen percent of the respondents said poor basic skills increased their operational costs 5% or more.

There was limited activity in the provision of academic skill-related workplace education during the 12 months prior to the survey. Only 2% (15) of respondents indicated what would generally be categorized as workplace literacy education taking place at their site. An additional 6% (40) of respondents reported providing on site training for workplace expectations and/or job-related topics.

However, there is interest and support among employers for educational services. Twenty percent of the respondents reported that their company would provide some type of incentive for unskilled employees to attend classes either on site or elsewhere in their community. Half of these paid for some or all of the costs of the classes. Nearly a quarter of the respondents were aware of employees who had attended classes in their community during the previous 12 months.

Half the respondents said they would be interested in learning about methods to encourage employees to attend adult education or GED classes at a local school or community college. Thirty percent indicated interest in information about basic education services available for workplace education. There was limited interest concerning information about starting a basic education class at the business site, except for those respondents from companies which employed 500 or more workers, in which 43% expressed interest in this area. These results suggest two directions. Smaller businesses are interested in more participation with existing community basic education programs, and larger businesses would consider programs on site.

In general, respondents from larger businesses indicated more problems related to inadequate basic skills. Respondents from businesses which employed non-native English speakers fairly consistently indicated more problems related to inadequate basic skills. At least a quarter of the respondents from businesses classified as agriculture, mining, construction, manufacturing and service indicated that 30% or

more of their unskilled workforce was made up of non-native English speakers. The statistically significant differences in how these employers answered most questions, along with their written comments, indicate non-native English speakers are impacting Nevada's workplaces and warrant special attention.

The written comments provided additional insight to employer's perceptions regarding basic skills in the workplace. While many recommended more adult basic education and ESL programs and some stated that they found inadequate basic skills among skilled as well as unskilled employees, nearly as many related that workplace education should not be a concern of the state and that they opposed any additional publicly funded programs for such purpose.

IMPLICATIONS

Employers who are to prepare employees for advancement and offer continuous job training may be better positioned to adapt to a changing future. In this study, employers expressed concern that inadequate basic skills were detrimental to their promotion and job training efforts. This has implications for maximizing economic development.

There is interest in information about available services and methods to encourage employees to attend classes in the community. While only a quarter of the respondents agreed that their company was changing so much that employees in unskilled jobs needed a higher level of basic skills, as the skills gap further manifests itself there is likely to be developing demand for educational services. However, respondents' written comments also indicated an unwillingness to allocate additional public funds for workplace education. These two trends lead to the likelihood of substantially increased demand on existing adult education and volunteer literacy programs.

While workplace literacy activities are often linked to on-site classes, the literature indicates that the majority of efforts, in fact, occur off site in conjunction with a school or community college based adult education program. Considering that approximately 98% of Nevada businesses have 100 or fewer employees, it is likely that small employers will need to rely on existing volunteer and publicly funded programs to supply workplace education.

On the other hand, even though there are fewer than one thousand businesses in Nevada that have more than 100 workers, these larger firms employ more than 50% of the workforce (Employment Security Research, Nevada Employment and Payrolls, 1993). Coordinating efforts with Nevada's major employers would likely result in reaching the greatest number of individuals.

RECOMMENDATIONS

1. Organize an informational campaign targeted to employers concerning methods to encourage employees to attend classes. Information about the types of incentives described by the respondents in this study could be a starting point.

2. Distribute to employers a concise list of education providers, perhaps by county or regions of the state. The Nevada Literacy Coalition currently has a state-wide directory of providers, which could be used as a base for this.

3. Inform providers of the interest by employers in information about available services. Literacy providers often work with human services agencies, and may be overlooking the business community. Community colleges, public schools and other larger providers should be encouraged to develop lists of employers in their service area for regularly distributing class schedules.

4. Such agencies as the Nevada Literacy Coalition and State Department of Education Adult Basic Education Office might consider focusing on workplace literacy as a theme for its training activities with instructors and literacy volunteers, with emphasis on functional context literacy and methods to work with students on their job related reading, writing and mathematics tasks.

5. The Nevada Literacy Coalition and State Department of Education Adult Basic Education Office should offer training activities for English as a Second Language instructors and volunteers in methods to incorporate work-related vocabulary and cultural aspects of the workplace into their curriculums.

6. Such agencies as the Small Business Development Centers or Economic Development Authorities might organize workshops for managers and supervisors focusing on multi-cultural workplaces and basic ESL teaching techniques that could be carried out in the workplace.

7. Since small employers rely on existing publicly funded programs and certain industries show need for different types of basic skills (as evidenced by the survey), community colleges and larger providers may consider coordinating with a group of businesses within the same industry to offer a class at a time and with content that would serve their employees. This approach would keep the class open to the public, focus on content motivating to the students and fulfill workplace education needs.

8. An informational campaign should be organized targeted to employers concerning symptoms of illiteracy in the workplace. Illiteracy is an invisible impairment. What may be perceived by supervisors as a lack of motivation, may be in reality reluctance on the part of an employee to expose his or her lack of reading, writing or mathematical ability.

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APPENDIX A

Summary of 132 comments for question, "Briefly explain any other problems in your organization due to inadequate basic education skills of employees in unskilled jobs".

Number of Comments Subject of Comment and Sample Comments

13 Limits Opportunity for Advancement

-The inadequate basic skills keep many hard working workers from earning better paying positions.
-Our Hispanic employees just don't progress as fast as they could due to lack of education.
-Decreased morale because the unskilled not promotable.

17 Problems with Communicating, Listening, Comprehending
-Listening skills are the most needed area of concentration.
-Lack of proper communication and understanding.

13 Problems with Reading and Writing
-Inability to write understandable reports and complete other paperwork.
-Safety material, employee policy, etc. is almost never read or understood, they sign it anyway.

7 Problems with Math Skills
-Math on invoices.

5 Problems with Making Change, Handling Money
-Inability to make change accurately.

14 Problems due to Limited English Skills
-Non-English speaking employees don't understand insurance, benefits and employment laws.
-Require a designated interpreter amongst staff to communicate.
-Language is the main barrier.

23 Work Habits, Attitudes, Motivation
-Above all you've covered, work ethic is a larger problem - self responsibility, initiative, etc.
-High turnover due to the lack of interest in working, no motivation to work.
-It is hard to determine when education or motivation is the problem.

4 Interpersonal Skills

7 Customer Service Problems
-Customer service can suffer from staff with poor education skills due to their speed is lacking and errors cause more lost time to customer and many instances of lost money to us.
-Creates poor company image, i.e. customer complaints.

6 Impact on Efficiency
-Mainly, the biggest problem is wasted product.
-Additional training hours needed.

7 Lack of Job-related or Occupational Skills

9 Miscellaneous Comments

7 No Problems

APPENDIX B

Summary of 138 comments for question, "What services should Nevada state agencies provide you regarding workplace basic skills?"

Number of Comments Subject of Comment and Sample Comments

15 Offer English Classes for Non-English Speakers
- -English classes for non-English workers.
- -More ESL, especially verbal skills in English for Hispanic employees.

10 Offer Basic Education or GED Classes
- -Reading, writing, arithmetic basic taught away from the workplace.
- -Basic adult education easily available.

5 Offer Occupational Training - Computers, Technical
- -Community college adult education GED/AA degree/ shop training/ office skills/ computers

6 Offer Training for Work Related Attitudes
- -Ability to follow instructions, communication skills.
- -Getting along or "people skills". Teamwork and what it means.

9 Provide Information about Classes
- -For all employers, provide English classes posters, etc.
- -Some written materials or information would be helpful to pass on to employees.

7 Serve as a Clearinghouse, Source of Information
- -Resources, guidance and some instruction.
- -Listing of services available.

5 Repeated Services Listed in Questions 26 to 31

3 Offer On-site ESL Classes
- -In-house ESL instruction on company premises at nominal fee.

9 Assistance to Employers for Screening, Testing Job Applicants
- -Testing materials and services.
- -Booklet to have applicants to fill out.

5 Other Possible State Agency Services
-Continue programs such as JOIN.
-Subsidize or a tax credit for job training.
-Training about teaching in the workplace.

10 Not State's Responsibility, Don't Spend Taxpayer Money on Basic Education
-If people need better skills it's not our place or state's place to provide. Should be individual responsibility!
-None, state services cost money.

16 Strengthen Public Schools
-Adequate testing and schooling of high school students.
-Invest in tech training and insure that basic education is handled in the school systems.

6 Respondent's Business Does Not Need Education Services

11 Miscellaneous Comments

21 None, no services needed

APPENDIX C

Samples of comments to final question, "Is there anything else you would like to tell us regarding your employees' basic education skills as they relate to your business?"

-Someone should tell SIIS (State Industrial Insurance System) that written safety programs have diminished effectiveness when provided to non-English speaking and/or illiterate employees.

-If my employees were more proficient in English, they would no longer take agricultural employment.

-It should be up to employers to hire competent personnel. If employees are unprepared, incompetent or illiterate, the state has no responsibility towards these people...

-The Northern Nevada Literacy Council made a very nice attempt at teaching 3 of our Hispanic employees better English, although it never really succeeded, but we really appreciated the effort. And I would be very interested in seeing it tried again.

-We need readily accessible English classes for our Hispanic workers.

-Spanish safety material needs to be made more readily available.

-We need to educate our labor force so they can advance to better jobs in our society. Get them out of the welfare system.

-...we find (employees) in semi-skilled jobs definitely need improved basic skills to keep up with changing technology, documentation required, computers, etc.

-Most of our unskilled employees are in assembly. There really is no basic education requirements.

-...I would invest the money in higher education. This will have the greatest pay back in the long run.

There are employees in skilled jobs for whom basic education skills are a significant problem.

-The state should coordinate training facilities in conjunction with the Economic Development Commission to target the same industries they are trying to attract to Nevada.

-Many people coming out of high school will not be going on to college. They are needed in the work force with basic training in trade skills. Expand trade training in high school.

-Unfortunately, the interview process to find qualified individuals for our openings is quite arduous. The key is a stronger emphasis in the present school system on basic math and English skills which will provide a skilled workforce. Our small business needs to use basic skills--not spend time developing basic skills.

-Basic education is the responsibility of K-12. A company such as our's is unable to invest its scarce resources in something like workplace education.

-I would be willing to help my workers help themselves if it was available.

-As a state, technical/practical training at the middle/high school levels is critical to everyone's future - including those desiring to go to college but particularly those who don't...

-My skilled employees need reading and writing training.

-Don't get involved in our workplaces. Concentrate on our educational system...

-Employers are beginning to become bilingual.

-Employers expect to train workers for jobs in their particular fields. But not to teach the basic skills of reading, writing and math. That should be the employee's responsibility to equip himself or better himself.

-This survey is based on employees who already received jobs. Thousands of applications are rejected because of some of the items listed in this study. I feel the general public is lacking in most 'general' skills...

-We are paying for ESL classes for our employees with Northern Nevada Community College.

-Government should not provide work place education! This does not serve the employers or the public at large... Help us by not helping us.

-I have great concern for employee and customer safety. I believe there are times when the lack of understanding of English, spoken and written, jeopardizes all present or following a specific situation.